

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|   |   |   |
|---|---|---|
| Applicant's or agent's file reference<br><b>P3S2004112</b>                                      | FOR FURTHER ACTION<br>See Form PCT/IPEA/416                     |   |
| International application No.<br><b>PCT/JP2004/009015</b>                                       | International filing date (day/month/year)<br><b>25.06.2004</b> | Priority date (day/month/year)<br><b>26.08.2003</b> |
| International Patent Classification (IPC) or national classification and IPC<br><b>F16G5/16</b> |   |   |
| Applicant<br><b>FUKUJU KOGYO KABUSHIKI KAISHA</b>   |   |   |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 15 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

|   |                                   |
|---|-----------------------------------|
| Date of submission of the demand        | Date of completion of this report |
| Name and mailing address of the IPEA/JP | Authorized officer                |
| Facsimile No.                           | Telephone No.                     |

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/009015

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 3, 8-13, 16 as originally filed/furnished
- pages\* 2, 4-7, 14, 15, 17-19 received by this Authority on 28.01.2005
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 2, 3, 6, 7, 10, 16, 17, 23, 24, 26 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1, 8, 18, 20 received by this Authority on 28.01.2005
- nos.\* 4, 5, 9, 13-15, 19 received by this Authority on 17.11.2005
- ☒ the drawings:
- sheets fig. 1-24, 26-32 as originally filed/furnished
- sheets\* fig. 25 received by this Authority on 28.01.2005
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 11, 12, 21, 22, 25
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

|                               |        |                         |     |
|-------------------------------|--------|-------------------------|-----|
| Novelty (N)                   | Claims | 1-10, 13-20, 23, 24, 26 | YES |
|                               | Claims |                         | NO  |
| Inventive step (IS)           | Claims | 1-8, 14, 20, 23, 24, 26 | YES |
|                               | Claims | 9, 10, 13, 15-19        | NO  |
| Industrial applicability (IA) | Claims | 1-10, 13-20, 23, 24, 26 | YES |
|                               | Claims |                         | NO  |

## 2. Citations and explanations (Rule 70.7)

Document 1: JP 61-26662 Y2 (Toyota Motor Corp.), 09 August 1986, page 3, left column, line 40 to right column, line 1 (Family: none)

Document 2: JP 2001-193796 A (Fukujyu Kogyo Kabushiki Kaisha), 17 July 2001, paragraph [0009] and fig. 4 & US 6679798 B & EP 1132649 A1 & WO 00/28237 A1

Document 3: JP 3-125053 A (Toyota Motor Corp.), 28 May 1991, page 3, lower right column, line 14 to page 4, upper left column, line 8 and fig. 6 to 8 (Family: none)

Document 4: JP 10-213185 A (Nissan Motor Co., Ltd.), 11 August 1998, entire text, all drawings (Family: none)

The invention set forth in claims 9 and 10 does not involve an inventive step in the light of newly cited document 1 and document 2 cited in the international search report. Document 1 indicates that if the angle formed by the side surface (14a) and the front surface (14b) of the main body is an obtuse angle and the front surface of the side surface (14a) is an inclined surface, then it becomes impossible to maintain an oil film upon

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the side surface (14a) and the driven surfaces of both pulleys. Meanwhile, document 2 discloses a feature wherein the metal wire material is bent into the shape of an element and then pressed in order to form the element. Therein, document 1 and document 2 both pertain to push blocks, and thus it would have been easy for a person skilled in the art to conceive of combining the inventions that are disclosed in documents 1 and 2.

The invention set forth in claim 13 does not involve an inventive step in the light of document 2 and document 3 cited in the international search report. Document 3 discloses a feature wherein the contact surface (50a), which is located at the center in the widthwise direction, decreases the thickness of the oil film and thereby increases the coefficient of friction. Therein, documents 2 and 3 both pertain to push blocks, and thus it would have been easy for a person skilled in the art to conceive of combining the inventions that are disclosed in documents 2 and 3.

The invention set forth in claims 15 to 17 does not involve an inventive step in the light of document 2 and newly cited document 4. Document 4 discloses a feature wherein a groove part (2e) is provided in the contact surface. Therein, documents 2 and 4 both pertain to push blocks, and thus it would have been easy for a person skilled in the art to conceive of combining the inventions that are disclosed in documents 2 and 4. In addition, a person skilled in the art could select or change the shape of the groove part (2e), as appropriate.

The invention set forth in claims 18 and 19 does not involve an inventive step in the light of documents 1 to 4. Document 4 discloses a feature wherein the width of

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the protruding part (2d) decreases towards the front end side and increases towards the back end side.

The inventions set forth in claims 1 to 8, 14, 20, 23, 24 and 26 are not disclosed in any of the documents that are cited in the international search report, and would not have been obvious to a person skilled in the art.